Metadata for Walnut Canyon National Monument, Field Plots Data Base for Vegetation Mapping

Identification_Information:
  Citation:
    Citation_Information:
      Originator: Kathryn Thomas
      Originator: Monica Hansen (comp.)
      Publication_Date: 2004
      Title: Field Releve Plots: Walnut Canyon National Monument Vegetation Mapping Project
      Geospatial_Data_Presentation_Form: vector digital data
      Other_Citation_Details: U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station
      Online_Linkage: http://biology.usgs.gov/npsveg/waca/fielddata.html
      Larger_Work_Citation:
        Citation_Information:
          Originator: M. Hansen, J. Coles, K.A. Thomas, D. Cogan, M. Reid, J. Von Loh, K. Schultz
          Publication_Date: 2004
          Title: USGS-NPS National Vegetation Mapping Program: Walnut Canyon National Monument, Arizona, Vegetation Classification and Distribution, Final Project Report
          Geospatial_Data_Presentation_Form: report
  Description:
    Abstract: This spatial dataset in ESRI Coverage format maps field releve plot locations for the vegetation classification and descriptions of the vegetation map at Walnut Canyon National Monument and in the surrounding environs as part of the National Vegetation Mapping Program.
    Purpose: This data set was developed to locate the field points used for classification and description of vegetation types for NVCS associations and map labels used to develop the vegetation map at Walnut Canyon National Monument and the surrounding environs.
  Time_Period_of_Content:
    Time_Period_Information:
      Single_Date/Time:
        Calendar_Date: 199906
    Currentness_Reference: ground condition
  Status:
    Progress: Complete
    Maintenance_and_Update_Frequency: None planned
  Spatial_Domain:
    Description_of_Geographic_Extent: Walnut Canyon National Monument and the environs.
    Bounding_Coordinates:
      West_Bounding_Coordinate: -111.559185
      East_Bounding_Coordinate: -111.437210
      North_Bounding_Coordinate: 35.212359
      South_Bounding_Coordinate: 35.137876
  Keywords:
    Theme:
      Theme_Keyword_Thesaurus: none
      Theme_Keyword: Vegetation
      Theme_Keyword: Releve
      Theme_Keyword: Field Plots
    Place:
      Place_Keyword_Thesaurus: none
      Place_Keyword: North America

Place_Keyword: United States
Place_Keyword: Southwestern United States
Place_Keyword: Arizona
Place_Keyword: Coconino County
Place_Keyword: Walnut Canyon National Monument
Access_Constraints: Data are available after research results have been published.
Use_Constraints: This data was compiled for government use and represent the results of data collection/processing for a specific USGS/BRD activity/project. The USGS/BRD makes no representation as to the suitability or accuracy of this data for any other purpose and disclaims any liability for errors that the data may contain. As such, it is only valid for its intended use, content, time, and accuracy specifications. While there are no explicit constraints on the use of this data, please exercise appropriate and professional judgment in the use and interpretation of this data. Acknowledgement of the originating agencies would be appreciated in products derived from this data.
Point_of_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Kathryn A. Thomas
Contact_Organization: USGS-SBSC-Colorado Plateau Research Station
Contact_Position: Project Leader, Vegetation Scientist
Contact_Address:
Address_Type: mailing and physical address
Address: U.S. Geological Survey
Address: Southwest Biological Science Center
Address: Colorado Plateau Research Center
Address: 2255 North Gemini Drive
City: Flagstaff
State_or_Province: Arizona
Postal_Code: 86001
Country: USA
Contact_Voice_Telephone: 928.556.7327
Contact_Facsimile_Telephone: 928.556.7500
Contact_Electronic_Mail_Address: Kathryn_A_Thomas@usgs.gov
Hours_of_Service: 8:00 a.m. to 5:00 p.m. (Arizona time) Monday through Friday
Contact_Instructions: E-mail
Browse_Graphic:
Browse_Graphic_File_Name: http://biology.usgs.gov/npsveg/waca/images/wacaplot.jpg
Browse_Graphic_File_Description: 504 kbyte file showing vegetation associations and locations of vegetation plot samples
Browse_Graphic_File_Type: JPG
Native_Data_Set_Environment: Microsoft Windows 2000 Version 5.0 (Build 2195) Service Pack 4; ESRI ArcCatalog 8.2.0.700
Cross_Reference:
Citation_Information:
Originator: Kathryn Thomas, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station, Monica Hansen, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station, Janet Coles, Bureau of Reclamation, Remote Sensing and Geographic Information Group, Dan Cogan, Bureau of Reclamation, Remote Sensing and Geographic Information Group
Publication_Date: 2003
Title: USGS-NPS Vegetation Mapping Program: Walnut Canyon National Park, Arizona, Vegetation Classification and Distribution. Technical Report FY 2004.
Edition: USGS Biological Resources Division Technical Report
Geospatial_Data_Presentation_Form: report
Cross_Reference:
Citation_Information:
Originator: Kathryn Thomas, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau

Research Station, Monica Hansen, U.S. Geological Survey, Southwest Biological Science Center, Colorado Plateau Research Station
Publication_Date: 2004
Title: WACA_FieldReleve_database.mdb
Geospatial_Data_Presentation_Form: database
Taxonomy:
Keywords/Taxon:
Taxonomic_Keyword_Thesaurus: None
Taxonomic_Keywords: plant communities
Taxonomic_Classification:
Taxon_Rank_Name: Kingdom
Taxon_Rank_Value: Plantae

Data_Quality_Information:
Attribute_Accuracy:
Attribute_Accuracy_Report: Dataset was quality checked in a spatial environment and through reviewing data entry.
Logical_Consistency_Report: Dataset was quality checked by visually inspecting the dataset in a geographic information system (GIS).
Completeness_Report: Data collection is complete with no exclusions
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report: Visual inspection was preformed on the dataset to ensure accuracy of all sampling locations
Lineage:
Process_Step:
Process_Description: Two CPRS plant ecologists conducted field surveys from mid-June thru mid-August 1999 and sampled 108 field plots in the project area. A gradsect sampling design was used to divide the park into 'environmental types' to stratify for field sampling. The gradsect was developed using terrain types and four aspect and elevation categories developed from a Digital Elevational Model (DEM). The result was 40 unique 'environmental types'. A total of over 100 potential plot locations were allocated based on the percent of the unique environmental types and were used to guide sampling. Within our environmental types we initially determined placement of plots based on road accessibility and land ownership access. Typically we measured 1,000m2 circular relevés; however, in areas of dense vegetation we would lower our plot size to 400m2. At the center of these releves we measured the UTMs via a GPS unit. Several environmental types were inaccessible due to extensive sharp lava beds causing high safety risks for the field crew. The implementation of laser binoculars, a new technology, was lent to the program from Karl Brown of the Center of Biological Informatics (CBI). The binoculars provide locality information in UTMs by targeting a location. The laser binoculars transfer information in UTMs by triangulation, using distance and azimuth of targeted locations in conjunction with the GPS Plugger system. Additional laser plots were completed in WACA until all environmental types within the gradsect sampling area were completed. All releve plot codes and UTMS were results entered into a table in a Microsoft Access database. The Microsoft Access database table was then converted to a text file and formatted as an ArcInfo generate file. The points coverage was then created using ArcToolbox generate.
Process_Date: 1999 to 2003
Process_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Kathryn Thomas
Contact_Organization: USGS-SBSC-Colorado Plateau Research Station
Contact_Position: Project leader
Contact_Address:
Address_Type: mailing and physical address
Address: U.S. Geological Survey
Address: Southwest Biological Science Center
Address: Colorado Plateau Research Station
Address: 2255 N. Gemini Dr.
City: Flagstaff

State_or_Province: Arizona
Postal_Code: 86001
Country: USA
Contact_Voice_Telephone: 928.556.7327
Contact_Facsimile_Telephone: 928.556.7500
Contact_Electronic_Mail_Address: Kathryn_A_Thomas@usgs.gov
Hours_of_Service: 8:00 a.m. to 5:00 p.m. (Arizona time) Monday through Friday
Contact_Instructions: E-mail

Spatial_Data_Organization_Information:
Direct_Spatial_Reference_Method: Vector
Point_and_Vector_Object_Information:
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Entity point
Point_and_Vector_Object_Count: 108
SDTS_Terms_Description:
SDTS_Point_and_Vector_Object_Type: Point
Point_and_Vector_Object_Count: 4

Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Planar:
Grid_Coordinate_System:
Grid_Coordinate_System_Name: Universal Transverse Mercator
Universal_Transverse_Mercator:
UTM_Zone_Number: 12
Transverse_Mercator:
Scale_Factor_at_Central_Meridian: 0.999600
Longitude_of_Central_Meridian: -111.000000
Latitude_of_Projection_Origin: 0.000000
False_Easting: 500000.000000
False_Northing: 0.000000
Planar_Coordinate_Information:
Planar_Coordinate_Encoding_Method: coordinate pair
Coordinate_Representation:
Abscissa_Resolution: 0.000016
Ordinate_Resolution: 0.000016
Planar_Distance_Units: meters
Geodetic_Model:
Horizontal_Datum_Name: North American Datum of 1983
Ellipsoid_Name: Geodetic Reference System 80
Semi-major_Axis: 6378137.000000
Denominator_of_Flattening_Ratio: 298.257222

Entity_and_Attribute_Information:
Detailed_Description:
Entity_Type:
Entity_Type_Label: waca_releve.pat
Entity_Type_Definition: This is a listing of all releve plot locations within the Walnut Canyon National Monument project area
Entity_Type_Definition_Source: User defined
Attribute:
Attribute_Label: FID
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:

Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
Attribute:
Attribute_Label: Shape
Attribute_Definition: Feature geometry.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Coordinates defining the features.
Attribute:
Attribute_Label: AREA
Attribute_Definition: Area of feature in internal units squared.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Area is always zero for point coverages. Values are automatically generated.
Attribute:
Attribute_Label: PERIMETER
Attribute_Definition: Perimeter of feature in internal units.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Perimeter is always zero for point coverages. Values are automatically generated.
Attribute:
Attribute_Label: WACA_RELEVE#
Attribute_Definition: Internal feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum: 1
Range_Domain_Maximum: 108
Attribute_Units_of_Measure: number
Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.
Attribute:
Attribute_Label: WACA_RELEVE-ID
Attribute_Definition: User-defined feature number.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum: 1
Range_Domain_Maximum: 108
Attribute_Units_of_Measure: number
Attribute:
Attribute_Label: PLOT_CODE
Attribute_Definition: Plot releve code developed as a unique identifier for the center of each releve point.
Attribute_Definition_Source: User Defined
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum: WC-001
Range_Domain_Maximum: WC-L010
Attribute:
Attribute_Label: X-COORD
Attribute_Definition: The geographical coordinates for UTM Easting (x-coordinate) collected at each accuracy assessment field point in NAD83 Zone12 using Garmin 45XL.
Attribute_Definition_Source: The Universal Transverse Mercator (UTM) Grid USGS Fact Sheet 077-01 (August 2001)(http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html)
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum: 449105
Range_Domain_Maximum: 460171

Attribute_Units_of_Measure: meters
Attribute:
Attribute_Label: Y-COORD
Attribute_Definition: The geographical coordinates for UTM Northing (y-coordinate) collected at each accuracy assessment field point in NAD83 Zone12 using Garmin 45XL.
Attribute_Definition_Source: The Universal Transverse Mercator (UTM) Grid USGS Fact Sheet 077-01 (August 2001)(http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07701.html)
Attribute_Domain_Values:
Range_Domain:
Range_Domain_Minimum: 3888476
Range_Domain_Maximum: 3896681
Attribute_Units_of_Measure: meters

Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Address:
Address_Type: mailing and physical address
Address: U.S. Geological Survey, Center for Biological Informatics, MS 302, Room 8000, Building 810, Denver Federal Center
City: Denver
State_or_Province: Colorado
Postal_Code: 80225
Country: USA
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: (303) 202-4219
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Resource_Description: Downloadable Data
Distribution_Liability: Although these data have been processed successfully on a computer system at the USGS-SBSC-Colorado Plateau Research Station, no warranty expressed or implied is made regarding the accuracy or utility of these data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any warranty. This disclaimer applies both to individual use of these data and aggregate use with other data. It is strongly recommended that these data be directly acquired from a U.S. Geological Survey server, and not indirectly through other sources that may have changed the data in some way. Its is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data. The U.S. Geological Survey and the SBSC-Colorado Plateau Research Station shall not be held liable for improper or incorrect use of these data described and/or contained herein.
Standard_Order_Process:
Digital_Form:
Digital_Transfer_Information:
Format_Name: HTML
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name: http://biology.usgs.gov/npsveg/waca/fielddata.html
Fees: none

Metadata_Reference_Information:
Metadata_Date: 20040210
Metadata_Review_Date: 20050620
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:

Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator
Contact_Address:
Address_Type: mailing and physical address
Address: U.S. Geological Survey, Center for Biological Informatics, MS 302, Room 8000, Building 810, Denver Federal Center
City: Denver
State_or_Province: Colorado
Postal_Code: 80225
Country: USA
Contact_Voice_Telephone: (303) 202-4220
Contact_Facsimile_Telephone: (303) 202-4219
Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov
Metadata_Standard_Name: Content Standard for Digital Geospatial Metadata, 1998, Part 1: Biological Data Profile, 1999 (FGDC-STD-001.1-1999)
Metadata_Standard_Version: FGDC-STD-001-1999